



## New Main Gate Opens at Lewis Field

Entrance Offers Enhanced Safety and Security

During a ribbon cutting ceremony on June 6, NASA's Glenn Research Center celebrated the latest milestone in its facilities masterplan, the completion of the newly constructed main gate at Lewis Field.

The main gate is the check-in point for Glenn employees and visitors, and part of a reconfigured entrance to Lewis Field. The new road leading up to the main gate has been named NASA Parkway.

Dr. Rickey Shyne, director of the Facilities and Test Directorate, led the ceremony, which included remarks by James Free, center deputy director, and guests comprising congressional staff; state and local elected officials; and public officials.

Shyne reflected on the center's master plan, announced in September 2007 as a vision for facilities and infrastructure improvements at Lewis Field and Plum Brook Station. "This ribbon cutting ceremony is another evolution in that process of transformation," he said.

Free affirmed that statement, calling the entranceway a "critical part of the center's master plan; which ultimately, from an institutional perspective, puts us on a path to support NASA and its long-term goals."

With the increase in security regulations of recent years, Glenn needed to be compliant with new



C-2011-1420

Photos by Michelle Murphy



C-2011-1593

*Ceremony pictorial highlights, clockwise: Dr. Shyne welcomes all and introduces special guests • Cutting the ribbon, left to right, Main Gate Project Manager David Ebner; Director of Center Operations Robyn Gordon; Dr. Shyne; Free; Deputy Associate Administrator, Office of Strategic Infrastructure, Dr. James Wright; and Pinnacle Construction Project Manager Scott Miner • Employees and guests tour new gate house and grounds • Employees sign congratulatory banner.*



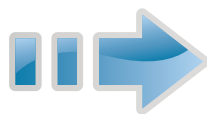
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C-2011-1418

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## What a Difference a Year Makes

This month, July 2011, marks 1 year as the Director. I must say I would not have been able to predict the ups and downs that we have experienced in this year. From a personal perspective, I was sitting in a hospital room with my mother following a stroke that concluded with her passing. I remember vividly the call from Administrator “Charlie” Bolden after my mother passed. He asked me if I had some time to talk, and one thing I had was time to talk. I remember thinking that I wish my mom were able to savor the news that I had been selected as the 11th Director of the Glenn Research Center; it was bittersweet news.

I would have expected things to get better; on some levels things did improve, and hopefully you noticed. Much needs to be done at Glenn and I must admit that I am trying hard to fix everything; maybe too many things, all at once. I suspect there are many employees that are unhappy with the things I have in work; little is really complete.

I want to give you my perspective of the things I am proud of and the areas I believe have improved. First, I am proud of the personnel selections I have made. I believe that Deputy Director Jim Free is really making a difference, not only at NASA Glenn but at an agency level. Currently he is the Chair of two Standing Review Boards (SRB); to the best of my knowledge, no other person is chairing two mission SRBs.

I am very satisfied with the work we have done on our Strategic Action Plan. I continue to get very positive response from people inside and outside the agency. There is still a lot that remains to be done, but we have done more than just publish a plan. We are making progress on it, which I will soon share with everyone.

I believe that our selection of Jefferson/Avascent to assess and catalog the center’s technologies is progressing well. We have 50 technologies that have been initially screened, and we are already doing a “deep dive” on the 17

technologies that appear to have some near-term commercialization potential. We will soon start assessing our center capabilities and this will provide us with sufficient information to make some very significant strategic decisions. I hope these decisions will position the center for a much more certain future, or one that we can proactively influence and manage.

I am comfortable that we are making some progress on improving the



*Center Director Lugo*

culture/climate of the center. I also believe that we are making people more accountable for their performance and we are doing a better, although not perfect, job in this area.

Overall, I am proud of our accomplishments this past year, but must admit that I am not satisfied. When I was offered this job, I could have easily just continued the status quo here at the center, and hang up my cleats in a few years. Unfortunately, that is not how I operate, and I suspect that makes me, what I stand for, what I want for this center, a target. We have a tough job ahead of us, and some days it is hard to push forward. NASA Glenn is too valuable to allow negative opinions to dictate the future of the center. So, I will push on, and hopefully my commitment will gain acceptance along the way.

## New Main Gate Opens

Continued from page 1

policies to protect center personnel and infrastructure, Free explained. Toward that goal, the new main gate and guardhouse offer a number of improved security features, including visitor processing outside the center’s secured perimeter, truck inspection away from inflowing traffic, crash-related barriers, and enhanced personal protection features for visitors and security personnel.

The new entranceway also boasts a number of safety features, including a gatehouse outside of the Airport Runway Protection Zone, sidewalks off the roadway to allow a buffer between pedestrians and traffic, and a reconfigured NASA Parkway and Brookpark Road intersection to reduce rear-end collisions for exiting traffic.

The single-story, 2,500-square-foot structure was designed for Gold certification by the U.S. Green Building Council Leadership in Energy and Environmental Design (LEED). LEED is a third-party certification program nationally accepted as the benchmark for design, construction and operation of high-performance green buildings. Key among the many energy-efficient



features is a ground-source heat pump that transfers heat to and from the earth to provide cooling and heating for the building.

Part of the June 6 celebration included lunch specials in the Lewis Field Main Cafeteria and free cake for employees. Employees could sign a congratulatory banner that was later displayed inside the guardhouse. The main gate officially opened 1 week after the ceremony on June 13.

—By Doreen B. Zudell

### Design and Construction

**Architectural Designer**  
A.M. Kinney, Cincinnati

**Construction**  
Pinnacle Custom Building Group, LLC, Cincinnati

**Glenn Project Manager**  
Dave Ebner, Project Management Branch, Facilities Division



# Dr. Shin Visits Glenn, Reviews Proposed Aeronautics Budget

## ARMD AA spreads positive message

Dr. Jaiwon Shin, associate administrator for NASA's Aeronautics Research Mission Directorate (ARMD), and members of the Headquarters' ARMD staff—Thomas Irvine, deputy associate administrator; and Robert Pierce, director of Strategy, Architecture and Analysis, visited Glenn last month. They met with Glenn's Senior Leadership Team, toured facilities and held an All Hands Meeting to present an overview of NASA's 2012 Budget Request for Aeronautics.

Under the proposed 2012 budget, NASA has established critical priorities and investments in technology, fundamental and integrated systems research and testing that will continue to generate improvements and economic impacts felt by the general flying public as well as the aeronautics community. Shin said that the 50 percent reduction in hypersonic research anticipated in the first year, will allow for an increase in other areas such as research for safe airport operations, high-altitude icing, composite structures and materials and alternative fuels.

"Proposed program reductions usually reflect change in setting national priorities, not the quality of work," Shin explained. "You can't afford to dwell on these decisions from a position of inferiority. It's important to maintain your focus on continuing a legacy of technical excellence and production, not on the program reduction."

Pierce explained that ARMD makes decisions by employing a strategic systems analysis capability focused on understanding the system-level impacts of NASA's programs, the potential for integrated solutions and the development of high-leverage options for new investment and partnership. The strategy behind last year's reorganization of ARMD's Aviation Safety Program (AvSP) was presented earlier this spring during a visit by Douglas Rohn, AvSP director and Glenn alumnus.

Shin and Irvine related the importance of strategy and analysis in long-term

investment of cutting-edge fundamental research or a technology that can be brought to technical readiness levels. They touted examples of Glenn research (some pursued during their careers here) which have captured the world market. For example, chevron research started at Glenn in the mid-1990s as basic research on jet fuel mixing and it has proceeded, with the help of industry partners, to become operational reality. The technology is featured on Boeing's latest two wide-body aircraft the Boeing 787 and the Boeing 747-8.

"Glenn can confidently look back upon its many contributions to aeronautic



C-2011-1401

Photo by Bridget Caswell

*Dr. Shin at the All Hands Meeting.*

advancements with pride," Shin affirmed. He said NASA anticipates many more contributions in the future.

—By S. Jenise Veris

## Plum Brook Bike Initiative Promotes Wellbeing

### A Good Way to Get Around

When Rachel Maynard, who oversees support systems for the B-2 facility at Plum Brook Station, found herself traveling frequently between several buildings that make up the B-complex, she knew there had to be a better way than using gas-powered vehicles to get from one building to another.

"When I interned at Lewis Field before beginning work at Plum Brook, I saw employees using bikes to get around the complex," Maynard said. "Since most of the land at Plum Brook is flat and the roads aren't busy, I figured bicycles could be used successfully here as well."



*Maynard with two of the bicycles in front of the B-Control building.*

Maynard measured mileage between buildings, compared bicycle styles and calculated startup costs. She also consulted with members of Glenn's GO-BIKE organization, which serves as the center's resource in bicycling information and expertise. Maynard determined that while gas-powered vehicles were often the best option to get around the vast 6,400-acre complex, bicycles would work nicely in areas such as the B-complex.

As a result of the research and approval from management, new lightweight and durable bicycles have been purchased that offer employees a healthy and convenient way to get where they need to be in some areas at Plum Brook. The initiative got into full swing this spring with the installation of a total of six bicycles stationed outside the B-Control and B-2 buildings. Maynard hopes to expand the program to other areas within Plum Brook in the future.

"I see the bike program as a way to promote health and reduce energy consumption," said Dave Taylor, deputy director, Plum Brook Management Office. "I'm most proud of this initiative, however, because it's not a management idea. It came from our employees and reflects their values and forward thinking."

—By Doreen B. Zudell



## News and Events

### Scout Night at Cleveland Gladiators

As part of NASA's Summer of Innovation program, astronaut Barry "Butch" Wilmore appeared during Scout night at the Cleveland Gladiators Arena Football League game on June 11. Glenn's External Programs Division staff organized exhibits and activities on the arena concourse and a pregame presentation on the Science of Football for area Boy Scouts attending the Arena Football League game. Wilmore, who piloted the STS-129 mission, shared personal insights in addition to participating in on-field activities, including the game's official coin toss, a halftime demonstration by the Great Lakes Science Center and a postgame autograph session. Pictured, right: Tom Benson, Inlet and Nozzle Branch (left) and Wilmore demonstrate a science lesson on the center of gravity aided by Gladiators players Al Kegg and Carlos Downey.



C-2011-1035

Photo by Marvin Smith

### IWASM Board Visits

On May 13, members of the International Women's Air & Space Museum (IWASM) Board of Directors visited Glenn at the invitation of Cynthia Calhoun, deputy chief, Program and Project Assurance Division. Calhoun is one of several Glenn female engineers who support IWASM outreach, along with Glenn exhibits, to inspire young women to pursue careers in science, technology, engineering and math. Pictured: Dan Gorman (center), Aircraft Operations Office, conducted a tour of the Hangar for IWASM board members.



Photo by S. Jenise Veris

### Wheelock Shares Mission Highlights



C-2011-1734

Photo by Michelle Murphy

On May 23, Astronaut Douglas Wheelock talked about his 6-month stay aboard the International Space Station (Expeditions 24 and 25) with Glenn employees and visiting students. Wheelock supported three unplanned spacewalks

to fully restore the station's failed cooling system during Expedition 25. He responded to a similar challenge during the STS-120 mission, which also required three unplanned spacewalks to repair several solar panels damaged during redeploy of a critical solar array. Pictured: Wheelock visited Glenn's Telescience Support Lab to express his appreciation for their efforts.

## Employees Receive SFA Awards at STS-134 Prelaunch Event

Three Glenn employees were among the NASA Space Flight Awareness (SFA) Program honorees invited to attend VIP festivities for the shuttle Endeavour STS-134 mission at NASA's Kennedy Space Center on April 26. The SFA Program recognizes outstanding job performance of civil service and contract employees throughout the year focusing on excellence in the quality and safety of support to human space flight. Glenn honorees included:

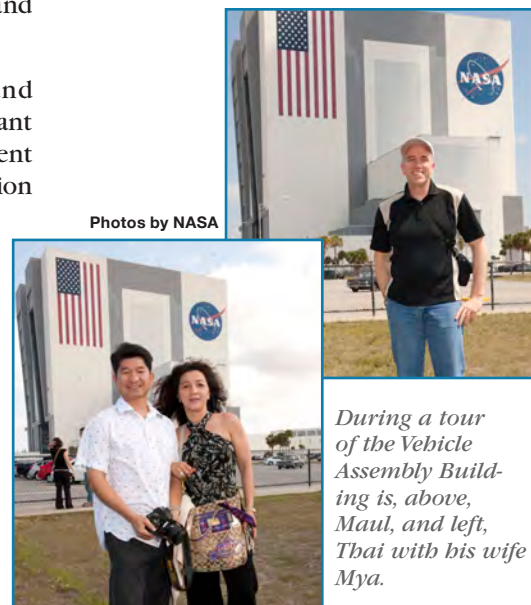
James Guptill, Power Systems Engineering Branch, for his extraordinary insight and problem solving via the time-phased power analysis of the International Space Station's power system for mission assembly

and certification of flight readiness and mission success.

William Maul, QNA/Controls and Dynamics Branch, for his significant contributions through development of advanced vehicle and propulsion systems health management technologies for NASA space launch systems.

Phuoc Thai, Program and Project Assurance Division, for his exemplary leadership implementing the equivalent of human-related space flight processes for software and complex electronics development.

For information about NASA's SFA Program, visit: <http://sfa.nasa.gov/>.



Photos by NASA

*During a tour of the Vehicle Assembly Building is, above, Maul, and left, Thai with his wife Mya.*



## Glenn and Cleveland Clinic Team for National Lab Day

NASA's Glenn Research Center, partnering with the Cleveland Clinic, became part of an unprecedented teaching experience this spring. On May 19, Glenn hosted National Lab Day, the culminating event of a nationwide movement to support science, technology, engineering and mathematics (STEM) education by connecting teachers and students with STEM professionals.

Leveraging existing relationships with local schools, NASA Glenn's Educational Programs Office (EPO), in collaboration with the Cleveland Clinic, initiated and facilitated working relationships between local teachers and STEM professionals. Participating educators identified areas of study that supported required state curriculum. Cleveland Clinic and Glenn STEM advisors were then matched with an educator whose area of study related to their field of expertise. Glenn EPO personnel provided resources to educators, in addition to team teaching in the classroom.

Seventy-four students and eight teachers, representing five schools from the Cleveland Metropolitan and East Cleveland City school districts, and a total of eight Glenn and Cleveland Clinic advisors assembled for the Glenn National Lab Day event. Mary Lester, deputy director for Center Operations kicked off the event by introducing Glenn and Cleveland Clinic managers who offered personal insight and encouragement to pursue STEM careers. The day included breakout sessions, student project critiques and tours of Glenn facilities.

National Lab Day is part of the Glenn-Cleveland Clinic Partnership under the Community Outreach Committee. More information on the National Lab initiative is available at <http://www.nationallabnetwork.org>.

—By S. Jenise Veris



C-2011-1381



C-2011-1366

Photos by Michelle Murphy

*Above, top: Dave Gutin, East Cleveland City Schools' educator, applauds his Heritage Middle School students for their outstanding presentation at Glenn. Above, below: Chief of External Programs Mike Foreman talked about his career as an astronaut.*

## Welcome Aboard Summer Student Interns!

### The Who, What, When, Where, Why and How

**Who:** Last winter, over 550 students applied to work at Glenn through the various internship programs. Out of those, over 135 were selected to intern at Glenn this summer.

**What:** A summer educational experience for:

- 114 college and high school students were chosen for the LERCIP program (Lewis Educational and Research Collaborative Internship Program)
- 16 students in grades 9-12 were chosen for INSPIRE (Interdisciplinary National Science Program Incorporating Research and Educational Experience)
- Some students in various other smaller programs like USRP/GSRP/ Glenn Academy, MUST, NSBRI, AISES, and ACCESS are also here.

**When:** May 23 was the day the first group of student interns started

working at Glenn for the summer. The last group began work at Glenn on June 20.

**Where:** 2011 summer interns are working in approximately 70 departments at NASA.

**Why:** Many came to Glenn with the motivation to expand beyond previous schooling and experience. About half came because they had been an intern at NASA before, and had such a great time they wanted to come back for more experiences. Others chose NASA for the prestige, because they thought it would be "cool" to work here over their summer.

**How:** Students found out about the internship by either looking online, or hearing about it through school faculty, mentors and friends.



Photo by Libby Hancock

*Due to construction at Lewis Field, summer interns take the Lab bus from building 500 parking lot.*

During the internship, some interns continue to live at home and will commute anywhere from 10 minutes to 1 hour. Others are from locations further away, such as New Mexico and Puerto Rico.

*By LERCIP summer intern Libby Hancock, Community and Media Relations Office*

## SMA Director Salutes Individual Safety Efforts

This spring, Director of Safety and Mission Assurance Thomas Hartline proudly presented NASA's Quality and Safety Achievement Recognition (QASAR) award to four employees whose leadership and guidance increased the overall quality and safety at NASA Glenn in 2010:

Dana Mulder, SAIC/Safety, Health and Environmental Division, for planning and leading significant improvements to Glenn's fire protection program. His efforts required a complete redesign of all Lewis Field building evacuation plans to make the center safer and fully compliant.



*Hartline, Panek and Engineering and Test Director Dr. Rickey Shyne.*

Brook's B-2 Facility spray chamber, and for addressing an immediate need for confined space rescue equipment on behalf of disabled employees.

Joseph Panek, Testing Division, for his initiative and long-term dedication to improving the efficiency and consistency of Glenn's quality practices for in situ calibrations.



*Hartline and Mulder*

Stanley Roberts, JSV/Plum Brook Station (PBS), for his superior performance in creating a safe working environment at Plum Brook's B-2 Facility spray chamber, and for addressing an immediate need for confined space rescue equipment on behalf of disabled employees.



*Hartline and Roberts*

David Tabayoyon, Safety, Health and Environmental Division, for his superior performance as Glenn's new Explosives Safety Officer, including working with explosive users and the Bureau of Alcohol, Tobacco, Firearms and Explosives, and improving the use and storage guidelines in Glenn's Explosive Safety Program.



*Hartline and Tabayoyon*

Photos by Eli Abumeri

For more information on the highly esteemed QASAR award and how to nominate fellow civil servant or support service contract employees, visit <http://www.hq.nasa.gov/office/codeq/qasar/index.htm>.

## NASA Small Business Award



C-2011-0824

Photo by Michelle Murphy

*Pictured, left to right: Lester, Gordon, Lugo, Monaco and Baker.*

officer and Teresa Monaco, small business specialist, in presenting the two awards to Center Director Ray Lugo at a Director's Strategic Management Meeting.

Glenn received a special achievement commendation at the 3rd Annual NASA Small Business Symposium and Awards Ceremony for exceeding the statutory 3 percent Service-Disabled Veteran-Owned Small Business (SD-VOSB) category for both FY 2009 and FY 2010. On April 26, Robyn Gordon, director of Center Operations and Mary Lester, Center Operations deputy director, joined Bradley Baker, Procurement Division

## HONOR AWARDS CEREMONY

**SAVE THE DATE!**

NASA Deputy Administrator Lori Garver will be the guest speaker at NASA Glenn's Annual Honor Awards Ceremony on Thursday, July 14 at 10:30 a.m. in the Lewis Field Hangar

## Patents Awarded

Several members of the Communications, Instrumentation and Controls Division have been awarded patents for significant technological breakthroughs with the potential for commercial applications worldwide.

John Wrbanek, Gustave Fralick and Susan Wrbanek—U.S. patent for "Space Radiation Detector with Spherical Geometry." Their invention discloses an innovative space radiation detector system design to aid monitoring radiation in deep space for the safety of mission crew and equipment.

Don Roth—U.S. patent for "Processing Waveform-Based NDE." This unique computer software was developed to process data from a noncontact electromagnetic measurement and imaging method, he previously patented. The software and method are used to assess erosion in thermal and environmental barrier coatings for high-temperature aerospace engine materials.

James Nessel and Dr. Richard Lee (retired)—U.S. patent for "Chalcogenide Nanoionic-Based Radio Frequency (RF) Switch." The patent discloses a process for the implementation of a nanoionic-based switch for use in wireless and RF applications.



## In Appreciation

I wish to thank my friends and coworkers for their kind support after the death of my mother. Your thoughts, prayers and contributions to the food bank were greatly appreciated. It is nice to know that everyone is so wonderful. Thanks!

—Missy Merrill





## In Memory

Donald L. Bresnahan, 82, who retired in 1992 with 32 years of NASA service, died May 26. Bresnahan was a U.S. Air Force Veteran, who had two distinct phases to



*Bresnahan*

his NASA career—working on aircraft propulsion in the 1960s and 1970s, and cryogenic fuel storage in the 1980s and 1990s. Bresnahan received a NASA Group Achievement Award (1980) as a member of the QCGAT (quiet, clean, general aviation turbofan) Project Office for outstanding contributions to general aviation turbofan technology with emphasis on reduced engine noise and emissions and improved performance. He later served as deputy manager for the Tank Pressure Control Experiment project that evaluated the use of jet-induced mixing to reduce cryogenic tank pressure. The test was flown on the Lewis Learjet, and then on the Atlantis STS-43 mission.

James S. Budimlic, 80, who retired in 1993 with 30 years of NASA service, died May 22. Budimlic spent his entire career in the Facilities Division working on the distribution of electrical power to test sites. He received a Special Achievement Award (1974) while

working in the Engine Research Building control center, and later earned a Group Achievement Award (1988) for teaming on the Electronic Systems Modifications to Glenn's Materials and Structures Laboratory.



*Budimlic*

Joseph F. Hobzek, Jr., 90, who retired in 1976 with 33 years of NASA service, died May 23. Hobzek served in the



*Hobzek*

Army Air Corp during World War II before joining NASA as an aerospace mechanic. He worked in the Test Installations Division throughout his career. Hobzek supported projects in the Engine Research Building, Compressor and Turbine Building, and finally the Electrical Propulsion Research Building. He was a member of the NASA golf and bowling leagues.



## Calendar

**CENTERWIDE GOLF OUTING:** Glenn will hold its second Centerwide Golf Outing on Friday, July 22 at the Mallard Creek Golf Course in Columbia Station. This 4-person scramble will begin with a shotgun start at 9:30 a.m. For more information, call Jeff Haas at 216-433-5718.

**RETIRED NASA WOMEN LUNCHEON:** The next luncheon will be Thursday, August 18, at noon at Don's Pomeroy House, 13664 Pearl Road, Strongsville. Please call Gerry Ziemba at 330-273-4850 or at gto64gerry@yahoo.com for reservations.

**IFPTE LOCAL 28, LESA MEETING:** LESA will hold its next membership meeting on Wednesday, July 13 at noon in the

Small Dining Room of the Employee Center.

**SUMMER FIESTA:** Back by popular demand—Glenn's Hispanic Advisory Group will host a Summer Fiesta on Aug. 5 from 4 to 9 p.m. at the Picnic Grounds. See Today@Glenn for details.

**NASA GLENN VISITOR CENTER:** FREE General Admission to the NASA Glenn Visitor Center and to the Great Lakes Science Center, every Tuesday, for all youth (18 and under or a student K-12 accompanied by an adult).

## Coming in August TEDx NASA

NASA's aeronautics centers are hosting TEDxNASA@SiliconValley 2011 in San Francisco on Aug. 17. The theme is "Extreme Green" with emphasis on the role that Green Technologies can play to improve both life on earth as well as life in space. Glenn employees who are not able to attend can view the event in the Briefing Center at 5:30 p.m.

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Watch Today@Glenn for details

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## Article Deadlines

News items and brief announcements for publication in the August issue is noon, July 22. Larger articles require at least one month notice.

**READ US ON THE INTERNET:**

<http://aerospacefrontiers.grc.nasa.gov>

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## National Aeronautics and Space Administration

### John H. Glenn Research Center at Lewis Field

21000 Brookpark Road  
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Editor: **Doreen B. Zudell**, SGT, Inc.

Assistant Editor: **S. Jenise Veris**, SGT, Inc.

Managing Editor: **Kelly R. DiFrancesco**



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## NASA Joins Summer Reading Club

### Cleveland Public Library Collaboration

NASA Glenn Research Center's outreach and education team is bringing fun learning activities to the local Cleveland community this summer through a collaboration with the Cleveland Public Library (CPL).

"NASA in Your Neighborhood," part of the CPL's 2011 Summer Reading Club, provides speakers for specific topics and accompanying educational activities each Wednesday from noon to 1:30 p.m. at various CPL branches.

The program kicked off on June 8 at the CPL's West Park Branch with the topic: "Protecting Our World." June Szucs, NASA retiree and member of Glenn's Speakers Bureau, discussed the need for clean air and water and discussed the book "The Magic School Bus at the Waterworks" by Joanna Cole.

Kristin Ratino, SGT/Office of Educational Programs, talked about the water collection on the International Space Station and the NASA video, "Our World: Recycling on the International Space Station." She led an interactive educational activity on filtering water. The audience was excited about transforming into an astronaut at Glenn's "Picture Yourself in Space" photo booth.

For more information about "NASA in Your Neighborhood," contact Jean Rogers, Community and Media Relations Office, at 216-433-2349.

—By Doreen B. Zudell



C-2011-1518

*Above: Ratino demonstrated how a water filtration system could be made of everyday materials such as cotton balls and coffee filters.*



C-2011-1489

Photos by Michelle Murphy

*Left: Public participants watch as Glenn's Community and Media Relations staff, Jean Rogers, middle, and Michael Brandon (PTEC), and Szucs, right, bring NASA to their neighborhood through the Picture Yourself in Space booth.*

### NASA In Your Neighborhood Schedule

The remaining dates and location of branches participating in the "NASA in Your Neighborhood" programs include:

**July 13:** "Climates of the World," Mt. Pleasant Branch

**July 20:** "People of the World," Woodland Branch

**July 27:** "Traveling Around the World," Collinwood Branch

**Aug. 3:** "Exploring Other Worlds," Rice Branch